

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Declaration and Power of Attorney**

As one of the below named inventors, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled

**A SYSTEM AND METHOD FOR SCHEDULING DATA DELIVERY USING MAX ALGORITHM**

the specification of which was filed on June 18, 1999 and identified as ser. no. (not yet assigned)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by an amendment, if any, specifically referred to in this oath or declaration.

I acknowledge the duty to disclose all information known to me which is material to patentability as defined in Title 37, Code of Federal Regulations, 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

None

I hereby claim the benefit under Title 35, United States Code, 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, 112, I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

None

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States

Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

I hereby appoint the following attorney(s) with full power of substitution and revocation, to prosecute said application, to make alterations and amendments therein, to receive the patent, and to transact all business in the Patent and Trademark Office connected therewith:

Lester H. Birnbaum	(Reg. No. 25830)
Richard J. Botos	(Reg. No. 32016)
Jeffery J. Brosemer	(Reg. No. 36096)
Kenneth M. Brown	(Reg. No. 37590)
Donald P. Dinella	(Reg. No. 39961)
Guy Eriksen	(Reg. No. P-41736)
Martin I. Finston	(Reg. No. 31613)
James H. Fox	(Reg. No. 29379)
Barry H. Freedman	(Reg. No. 26166)
Julio A. Garceran	(Reg. No. 37138)
Mony R. Ghose	(Reg. No. 38159)
Jimmy Goo	(Reg. No. 36528)
Anthony Grillo	(Reg. No. 36535)
Stephen M. Gurey	(Reg. No. 27336)
John M. Harman	(Reg. No. 38173)
Donald E. Hayes, Jr.	(Reg. No. 33245)
John W. Hayes	(Reg. No. 33900)
Mark A. Kurisko	(Reg. No. 38944)
Irena Lager	(Reg. No. 39260)
Christopher N. Malvone	(Reg. No. 34866)
Scott W. McLellan	(Reg. No. 30776)
Martin G. Meder	(Reg. No. 34674)
Geraldine Monteleone	(Reg. No. 40097)
John C. Moran	(Reg. No. 30782)
Michael A. Morra	(Reg. No. 28975)
Gregory J. Murgia	(Reg. No. 41209)
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Eugen E. Pacher	(Reg. No. 29964)
Jack R. Penrod	(Reg. No. 31864)
Daniel J. Piotrowski	(Reg. No. P-42079)

Gregory C. Ranieri	(Reg. No. 29695)
Scott J. Rittman	(Reg. No. 39010)
Eugene J. Rosenthal	(Reg. No. 36658)
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Ronald D. Slusky	(Reg. No. 26585)
David L. Smith	(Reg. No. 30592)
Patricia A. Verlangieri	(Reg. No. P-42201)
John P. Veschi	(Reg. No. 39058)
David Volejnicek	(Reg. No. 29355)
Charles L. Warren	(Reg. No. 27407)
Eli Weiss	(Reg. No. 17765)

I hereby appoint the attorney(s) on ATTACHMENT A as associate attorney(s) in the aforementioned application, with full power solely to prosecute said application, to make alterations and amendments therein, to receive the patent, and to transact all business in the Patent and Trademark Office connected with the prosecution of said application. No other powers are granted to such associate attorney(s) and such associate attorney(s) are specifically denied any power of substitution or revocation.

Full name of first joint inventor: Swarup Acharya

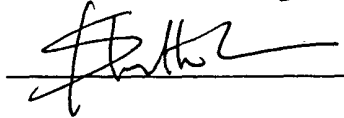
Inventor's signature: \_\_\_\_\_ Date \_\_\_\_\_

Residence: 32 Southgate Road, Apt. 2, New Providence, NJ 07974

Citizenship: India

Post Office Address: Same as above

Full name of second joint inventor: Shanmugavelayut Muthukrishnan

Inventor's signature:  Date 31 / Aug / 99

Residence: 501, 201 West 123rd Street, New York, NY 10027

Citizenship: India

Post Office Address: Same as above

Full name of third joint inventor: Ganapathy Sundaram

Inventor's signature: \_\_\_\_\_ Date \_\_\_\_\_

Residence: 137 Tussel Lane, Scotch Plains, NJ 07076

Citizenship: India

Post Office Address: Same as above

**ATTACHMENT A**

Attorney Name(s):	JOSEPH SOFER	Reg. No.: 34,438
	ROBERT M. HAROUN	Reg. No.: 34,345
	THOMAS C. HUGHES	Reg. No. 42,674

Telephone calls should be made to **Joseph Sofer** at:

Phone No.: (212) 697-2800

Fax No.: (212) 697-3004

All written communications are to be addressed to:

**Joseph Sofer, Esq.  
Sofer & Haroun, LLP.  
342 Madison Avenue, Suite 1921  
New York, New York 10173**

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Full name of first joint inventor: Swarup Acharya

Inventor's signature: S Acharya Date 8/5/99

Residence: 32 Southgate Road, Apt. 2, New Providence, NJ 07974

Citizenship: India

Post Office Address: Same as above

Full name of second joint inventor: Shanmugavelayut Muthukrishnan

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Residence: 501, 201 West 123rd Street, New York, NY 10027

Citizenship: India

Post Office Address: Same as above



Full name of third joint inventor: Ganapathy Sundaram

Inventor's signature: Ganapathy Sundaram Date Aug. 27<sup>th</sup> 1999.

Residence: 137 Tussel Lane, Scotch Plains, NJ 07076

Citizenship: India

Post Office Address: Same as above

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**Sofer & Haroun, LLP.**  
342 Madison Avenue, Suite 1921  
New York, New York 10173

Acharya 8-15-3

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE****Patent Application**

Applicant(s): S. Acharya et al.  
Case: 8-15-3  
Serial No.: 09/336,981  
Filing Date: June 21, 1999  
Group: 2127  
Examiner: Kenneth Tang

Title: System and Method for Scheduling Data  
Delivery Using Max Algorithm

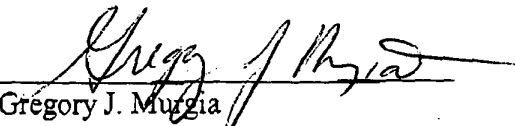
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**ASSOCIATE POWER OF ATTORNEY**

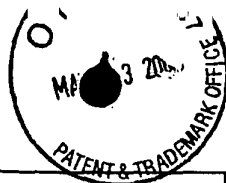
Please recognize Joseph B. Ryan (Reg. No. 37,922), Kevin M. Mason (Reg. No. 36,597), William E. Lewis (Reg. No. 39,274), Robert J. Mauri (Reg. No. 41,180), Wayne L. Ellenbogen (Reg. No. 43,602), Michael J. Chang (Reg. No. 46,611) and Robert W. Griffith (Reg. No. 48,956) of Ryan, Mason & Lewis, LLP, 90 Forest Avenue, Locust Valley, New York 11560 as associate attorneys in the above-mentioned application, with full power to prosecute said application, to make alterations and amendments therein, and to transact all business in the Patent and Trademark Office connected therewith.

Telephone calls should be made to the associate attorney Joseph B. Ryan by dialing (516) 759-7517.

All written communications are to be addressed to Ryan, Mason & Lewis, LLP, 90 Forest Avenue, Locust Valley, New York 11560.

  
Gregory J. Murgia  
Attorney for Applicant(s)  
Reg. No. 41,209

Dated: 7/8/03



FORM PTO-1449 U.S. DEPARTMENT OF  
COMMERCE  
(Rev.2-3) PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.  
555-084

SERIAL NO.  
09/336,981

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

(Use several sheets if necessary)

APPLICANT  
Swarup Acharya

FILING DATE  
June 21, 1999

GROUP  
2755

U.S. PATENT DOCUMENTS

EXAMINE R INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
					YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

KT		S. Acharya and S. Muthukrishna. Scheduling on -demand broadcast: New metrics and algorithms. In Proc. of IEEE/ACM Mobicom, Dallas, October 1998
KT		M. Bender, S Chakrabari, and S. Muthukrishna. Flow and stretch metrics for scheduling continuous job streams. In Proceedings of the Ninth Annual ACM-SIAM Symposium on Discrete Algorithms, pages 270-279, San Francisco, California, 25-27 January 1998
KT		M. Crovella, M Harchol-Balter, and C. Murta. Task Assignment in a distributed system: Improving performance by unbalancing load. Technical Report 97-018, Boston University, October 31, 1997.
KT		M. Crovella, M. Harchol-Balter, and S. Park. The case SRPT scheduling in web serves. Technical report, Boston University, October 31, 1998.
KT		H. Zhang. Service Disciplines For Guaranteed Performance Service in Packet-Switching Networks.
KT		J. Gehrke, S. Muthukrishnan, R. Rajaraman, and A. Shaheen. Scheduling to Minimize Average Stretch. Technical Report 99-2 January 1999.
KT		H. Kellerer, T. Tautenhahn, and G.. J. Woeginger. Approximability and non approximability results for minimizing total flow time on a single machine. In Proc of 28 <sup>th</sup> ACM Symp on Theory of Computing, pages 418-246, 1996.
KT		S. Leonardi and D. Raz. Approximating total flow time on parallel machines. In Proc of 29 <sup>th</sup> ACM Symp on Theory of Computing, 1997.
KT		H. Balakrishnan, V. Padmanabahn, S. Seshan, and R. Katz. A comparison of Mechanics for Improving TCP Performance over Wireless Links. Proc. ACM SIGCOMM 96. Stanford CA, August 1996.
KT		M. Corvella, R. Frangioso, and M. Harchol-Balter. Connection Scheduling in Web Servers. Technical Report BUCS-TR-99-003 April 10, 1999.
KT		H. Schwetman. CSIM: A C-Based Process-Oriented Simulation Language. Proceeding of 1986 Winter Simulation Conference.

KT		D.J. Goodman, J. Borras, N.B. Mandayam, and R.D. Yates. Infostations: A new system model for data and messaging services. Proceedings of IEEE VTC '97 Vol 2, pages 969-973, Phoenix, May 1997.
KT		A. Bakre and B.R. Badrinath. Handoff and System Support for Indirect TCP/IP. Department of Computer Science, Rutgers University.
KT		D. Ferrari and D. Verma. A Scheme for Real-Time Channel Establishment in Wide Area Networks.
KT		N. Vadya and S. Hameed. Data broadcast in asymmetric wireless environments. In First International Workshop on Satellite-based Information Services (WOSBIS), 1996.

EXAMINER

*Kenneth Ly*

DATE CONSIDERED

*9/16/02*

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.